

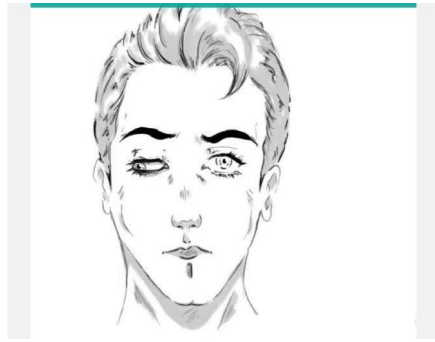
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OCULOMOTOR NERVE **PALSY**

Contents

- Introduction
- Anatomy of eyes
- Etiology
- Epidemiology
- Pathophysiology
- Clinical features
- Risk factors
- Complications and prevention
- Diagnosis
- Goals of treatment
- Management
- Common assessment
- Case study
- Review of literature

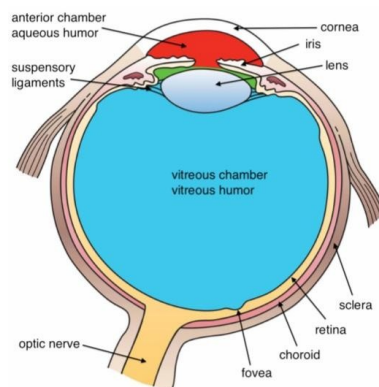
INTRODUCTION



Third nerve palsy, also known as oculomotor nerve palsy, occurs when the third cranial nerve is damaged by disease or injury. The third nerve controls the actions of four external eye muscles. These muscles are responsible for moving the eye upward and downward, rotating the eye outward toward the ear and turning the eye inward.

The third cranial nerve also controls focusing abilities, upper eyelid position, and pupil constriction.

The third cranial nerve also controls constriction of the pupil, the position of the upper eyelid, and the ability of the eye to focus. A complete third nerve palsy causes a completely closed eyelid and deviation of the eye outward

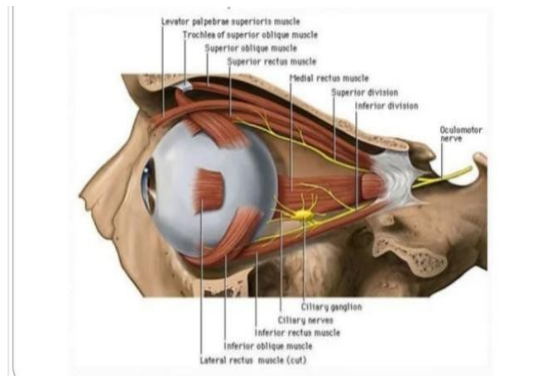


and downward. The eye cannot move inward or up, and the eye pupil is typically enlarged and does not react normally to light. A partial third nerve palsy affects to varying degrees any of the functions controlled by the third cranial nerve.

Since many of eye's muscles are controlled by the third nerve, palsy of this nerve can result in partial or complete paralyses of the eye muscles.

Anatomy of Eye

The eye divided into three layers the outermost layer is fibrous layer and it is consist of the cornea that is transparent located at the center of the eye the sclera is white and covers the rest of the eye. The second layer is vascular layer it is consist of the choroid (contain blood supply to the retina) the iris (contain pupils and smooth muscles that controls it's



diameter.

The oculomotor nerve complex present in midbrain at the level of the superior colliculus.

- contain main motor nucleus assessorary parasympathetic nucleus (eidneger westphal nucleus)
- fiber pass between the posterior cerebral artery and the superior cerebellar artery to reach the cavernues sinus.
- during this course , the oculomotor nerve lies lateral to posterior communicating artery .the nerve then divided into a superior and inferior division and enter the orbits through the superior orbital fissure.

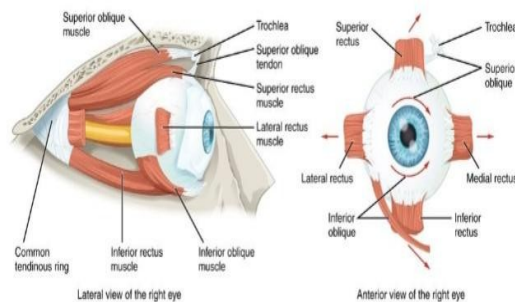
At this point it divides into superior and inferior branches.

- superior branches - provides motor innervation to the superior rectus and levator palpabrae superioris.
- sympathetic fibers run with the superior branch to innervates the superior tarsal.
- inferior branches -provides motor innervtion to the inferior rectus,medial rectus ,and inferior oblique.
- also supplies pre ganglionic parasymethatic fiberto the cilliary ganlion.

- inferior branches:

Inferior rectus -depress the eye ball.

Medial rectus - adducta the eye ball.



Inferior oblique- elevates ,abducts and laterally rotates the eye ball.

As the name suggest ,oculomotor nerve supplies the majority of the muclees controlling eye movement .

(four of the six extraocular muscles ,excluding only the lateral rectus and superior oblique.)

Damage to this nerve will result in ability to move the eyes normally .

The nerve supplies the upper eyelids muscle(levator palpebrae superior)and is accompanied by parasympathetic fiber innerveting the muscle responsible for pubic contraction .(sphicter pupillae).

The limitation of eye movement resulting from the condition are generally so severe that patients are often unable to maintain normal eye alignent when gazing ,straight ahead ,leading to strabismus and double vision (dilopi).

Classification of oculomotor nerve palsy

1. Complete or incomplete palsy

Complete: Involves both superior and inferior divisions of the nerve.



Incomplete: Involves superior division, inferior division (rarely), or an isolated muscle

2. Total palsy or partial paresis

* Total: Full restriction of extraocular muscles is present.



* Partial: Restriction of extraocular muscles is limited.

3. Pupil-involving or pupil-sparing palsy

* Pupil involving: Pupil is dilated, with an accommodative insufficiency.



* Pupil sparing: Pupil and accommodative function are normal.

Etiology

- . ***Diabetes Mellitus***: Most common cause of oculomotor nerve palsy in adults.
- . ***Hypertension***: Can cause microvascular ischemia leading to oculomotor nerve palsy.
- . ***Aneurysm***: Compression of the oculomotor nerve by an aneurysm can cause palsy.
- . ***Stroke***: Infarction of the midbrain or pons can cause oculomotor nerve palsy.
- . ***Head Trauma***: Trauma to the head can cause compression or transection of the oculomotor nerve.
- . ***Orbital Trauma***: Trauma to the orbit can cause compression or transection of the oculomotor nerve.
- . ***Brain Tumors***: Tumors in the midbrain, pons, or orbit can compress the oculomotor nerve.
- . ***Meningioma***: Tumors arising from the meninges can compress the oculomotor nerve.
- . ***Multiple Sclerosis***: Demyelination of the oculomotor nerve can cause palsy.
- . ***Guillain-Barré Syndrome***: Autoimmune disorder that can cause demyelination of the oculomotor nerve.
- . ***Meningitis***: Infection of the meninges can cause compression or inflammation of the oculomotor nerve.
 - ***Encephalitis***: Infection of the brain can cause compression or inflammation of the oculomotor nerve.
- . ***Cavernous Sinus Thrombosis***: Blood clot in the cavernous sinus can compress the oculomotor nerve.

- . ***Congenital Oculomotor Nerve Palsy***: Rare condition present at birth.
- . ***Duane's Syndrome***: Congenital condition that affects the oculomotor nerve and causes limited eye movement.

Pathophysiology

Oculomotor nerve palsy occurs when there is damage or disruption to the oculomotor nerve (cranial nerve III), which is responsible for controlling the movement of the eye muscles, eyelid, and pupil.

- The pathophysiology of oculomotor nerve palsy involves the interruption of nerve signals that normally transmit from the brain to the eye muscles, resulting in weakness or paralysis of the muscles.
- This can lead to symptoms such as double vision (diplopia), drooping eyelid (ptosis), and pupil dilation.
- The damage to the oculomotor nerve can be caused by various factors, including vascular compression or infarction, traumatic injury, tumors, or inflammatory diseases. As a result, the nerve's ability to transmit signals is impaired, leading to the characteristic symptoms of oculomotor nerve palsy. In some cases, the damage may be reversible, and spontaneous recovery may occur, while in other cases, prompt treatment may be necessary to alleviate symptoms and prevent complications.

Clinical features

. *Diplopia (Double Vision)*: Horizontal or vertical double vision due to impaired eye movement.

. *Ptosis (Drooping Eyelid)*: Weakness or paralysis of the levator palpebrae superioris muscle.

- Pupil Involvement*: Dilated pupil (mydriasis) or sluggish pupil reaction to light.

- Limited Adduction*: Inability to move the eye towards the nose.

- Limited Elevation*: Inability to move the eye upwards.

- Limited Depression*: Inability to move the eye downwards.

- Exotropia*: Eye turns outward.

- Headache*: Due to compensation for impaired eye movement.

- *Blurred Vision*: Due to impaired eye movement or pupil involvement.

- Eye Strain*: Due to compensation for impaired eye movement.

- Oculomotor Nerve Weakness*: Weakness or paralysis of the oculomotor nerve.

- *Eye Movement Abnormalities*: Limited or absent eye movement.

Risk factors

- Hypertension : High blood pressure can cause damage to the blood vessels supplying the oculomotor nerve.
- *Diabetes Mellitus*: Diabetes can cause damage to the blood vessels and nerves, including the oculomotor nerve.
- Atherosclerosis: Hardening of the arteries can reduce blood flow to the oculomotor nerve.
- Stroke: A stroke can damage the oculomotor nerve or its blood supply.
- *•Head Trauma*: A head injury can damage the oculomotor nerve or its blood supply.
- Orbital Trauma: An injury to the orbit (eye socket) can damage the oculomotor nerve.
- Brain Tumors: Tumors in the brain, such as meningioma or glioma, can compress the oculomotor nerve.
- *Meningitis: Inflammation of the meninges (membranes surroundin

Diagnosis

-

Clinical Evaluation

1. ***Medical history***: Assess for trauma, diabetes, hypertension, and other conditions that may cause oculomotor nerve palsy.
2. ***Neurological examination***: Evaluate cranial nerve function, particularly oculomotor (III), trochlear (IV), and abducens (VI) nerves.
3. ***Ophthalmological examination***: Assess visual acuity, pupillary reactions, and extraocular muscle function.

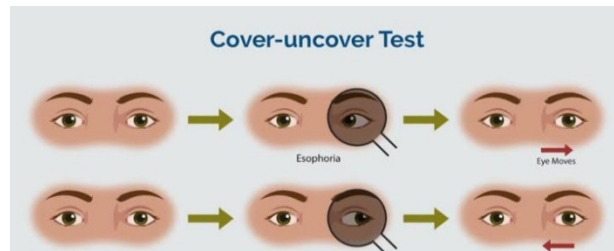
Diagnostic Tests

1. ***Computed Tomography (CT) scan***: Evaluate for structural lesions, such as aneurysms or tumors, that may compress the oculomotor nerve.
2. ***Magnetic Resonance Imaging (MRI)***: Assess for lesions or abnormalities in the brainstem, cavernous sinus, or orbit that may affect the oculomotor nerve.
3. ***Angiography***: Evaluate for vascular abnormalities, such as aneurysms or arteriovenous malformations, that may compress the oculomotor nerve.
4. ***Electromyography (EMG)***: Assess the electrical activity of the extraocular muscles to determine the extent of nerve damage.
5. ***Visual evoked potentials (VEP)***: Evaluate the electrical activity of the visual pathway to assess for any abnormalities.

Special test :

1. ***Cover-Uncover Test***

Definition: Assesses eye alignment and movement by covering and uncovering one eye.

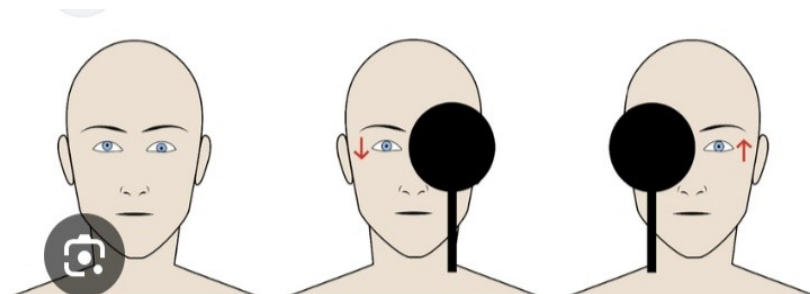


Procedure:

- Cover one eye with a card or paddle
- Ask the patient to look at a fixed point
- Uncover the eye and observe for eye movement
- Repeat on the other side

2. *Alternate Cover Test*

Definition: Evaluates eye alignment and movement by quickly switching the cover between eyes.



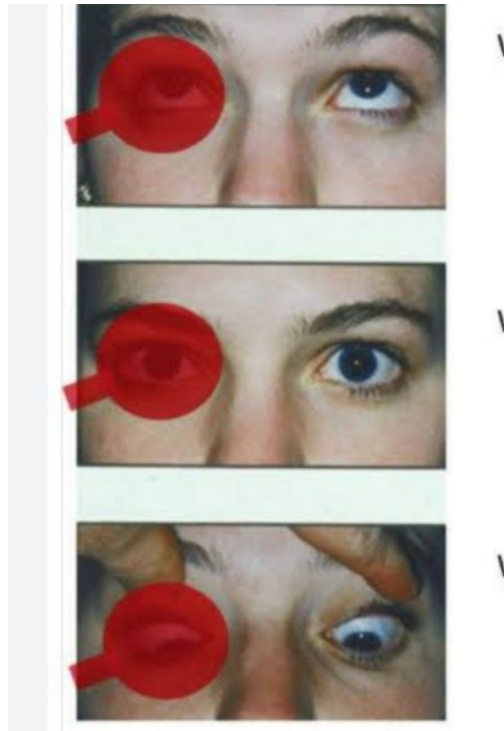
Procedure:

- Cover one eye with a card or paddle
- Ask the patient to look at a fixed point
- Quickly switch the cover to the other eye
- Observe for eye movement and alignment

2. *Red Glass Test*

Definition: Evaluates diplopia and eye alignment using a red glass.

Procedure:



- Use a red glass or a similar device
- Place the red glass over one eye
- Ask the patient to look at a fixed point
- Observe for diplopia and eye alignment

3. *Maddox Rod Test*

Definition: Assesses eye alignment and movement using a specialized device.



Procedure:

- Use a Maddox rod or a similar device
- Place the Maddox rod over one eye
- Ask the patient to look at a fixed point
- Observe for eye alignment and movement.

4. *Near Point of Convergence Test*

Definition: Assesses eye alignment and movement at near distances.



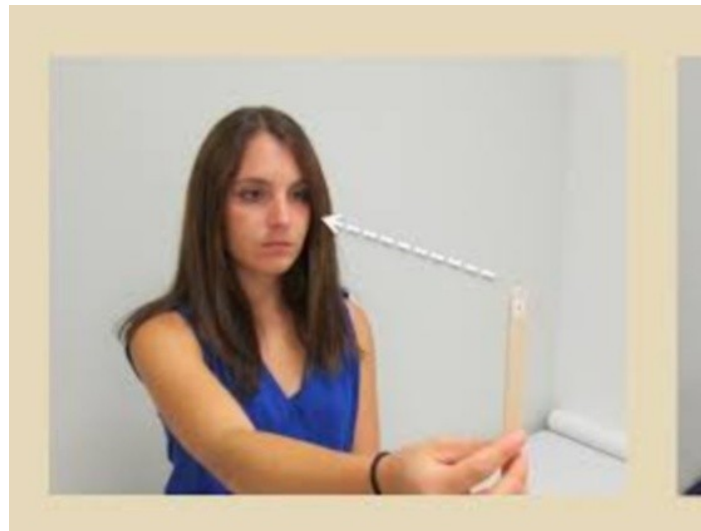
Procedure:

- Hold a pen or finger in front of the patient's nose

- Slowly move the pen or finger towards the patient's face
- Ask the patient to follow the pen or finger with their eyes
- Observe for eye alignment and movement

5. *Far Point of Convergence Test*

Definition: Evaluates eye alignment and movement at far distances.



Procedure:

- Hold a pen or finger at a distance from the patient
- Ask the patient to look at the pen or finger
- Slowly move the pen or finger away from the patient
- Observe for eye alignment and movement.

Differential Diagnosis

1. *Myasthenia gravis*: An autoimmune disorder that causes fluctuating muscle weakness.
2. *Thyroid eye disease*: An autoimmune disorder that causes inflammation and swelling of the tissues around the eye.
3. *Orbital cellulitis*: An infection of the tissues surrounding the eye.

4. *Cavernous sinus thrombosis*: A blood clot in the cavernous sinus that can compress the oculomotor nerve.

g the brain and spinal cord) can damage the oculomotor nerve.

- Encephalitis: Inflammation of the brain can damage the oculomotor nerve.

- Multiple Sclerosis: An autoimmune disease that can damage the oculomotor nerve.

- Age: Oculomotor nerve palsy is more common in older adults.

- Family History: A family history of oculomotor nerve palsy or other neurological disorders may increase the risk.

- *Previous Eye Surgery*: Previous eye surgery, such as cataract surgery•

Complications

•Permanent Vision Loss: Untreated oculomotor nerve palsy can lead to permanent vision loss.

•Diplopia (Double Vision)_: Persistent diplopia can affect daily activities and quality of life.

•Amblyopia:Untreated oculomotor nerve palsy in children can lead to amblyopia (lazy eye).

•Dry Eye: Weakness of the levator palpebrae superioris muscle can lead to dry eye.

•Increased Risk of Falls: Diplopia and vision loss can increase the risk of falls.

•Decreased Quality of Life: Oculomotor nerve palsy can affect daily activities, social interactions, and overall quality of life.

•Depression and Anxiety: Chronic diplopia and vision loss can lead to depression and anxiety.

•Progressive Neurological Disease: Oculomotor nerve palsy can be a sign of an underlying progressive neurological disease, such as multiple sclerosis or Parkinson's disease.

•Surgical Complications: Surgery can lead to complications, such as infection, bleeding, or damage .

Prevention

- Maintain a healthy blood pressure: High blood pressure can damage blood vessels and increase the risk of oculomotor nerve palsy.
 - Control blood sugar levels: Diabetes can damage blood vessels and nerves, including the oculomotor nerve.
 - Exercise regularly: Regular exercise can help maintain healthy blood vessels and nerves.
 - Eat a balanced diet: A healthy diet rich in fruits, vegetables, and whole grains can help maintain overall health.
 - Avoid falls: Take steps to prevent falls, such as removing tripping hazards and using handrails.
 - Regular eye exams: Regular eye exams can help detect any underlying conditions that may increase the risk of oculomotor nerve palsy.
 - Regular health check-ups: Regular health check-ups can help detect any underlying conditions that may increase the risk of oculomotor nerve palsy.
 - *•Avoid smoking*: Smoking can damage blood vessels and increase the risk of oculomotor nerve palsy.
 - Avoid exposure to toxins: Avoid exposure to toxins, such as pesticides and heavy metals, which can damage nerves and blood vessels.
-
- Manage diabetes: If you have diabetes, manage your blood sugar levels to prevent damage to blood vessels and nerves.
 - Manage hypertension: If you have high blood pressure, manage your blood pressure to prevent damage to blood vessels and nerves.
 - Manage multiple sclerosis: If you have multiple sclerosis, manage your condition to prevent damage to the oculomotor nerve.

Goals of **treatment**

- . Relieve double vision.
- Improve eye movement.
- . Reduce pain.
- . *Improve visual activity.
- . *Maintain eye alignment.

Management:

Medicinal Management

1. ***Corticosteroids***: To reduce inflammation and swelling, especially in cases of traumatic or inflammatory oculomotor nerve palsy.

- Examples: Prednisone, Methylprednisolone

2. ***Anticholinesterases***: To improve muscle strength and function, especially in cases of myasthenic oculomotor nerve palsy.

- Examples: Pyridostigmine, Neostigmine

3. ***Antibiotics***: To treat underlying infections, such as meningitis or orbital cellulitis, that may be causing oculomotor nerve palsy.

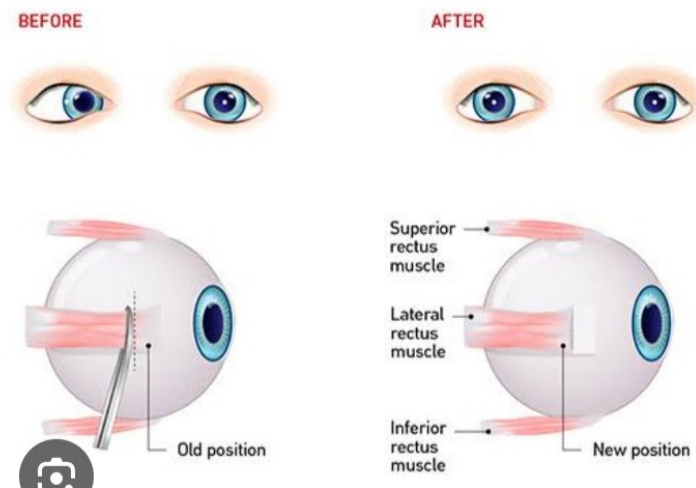
- Examples: Ceftriaxone, Vancomycin

4. ***Pain management***: To manage pain and discomfort associated with oculomotor nerve palsy.

- Examples: Acetaminophen, Ibuprofen

Surgical management

Strabismus Surgery



1. ***Recession***: Weakening of the muscle to reduce its action.

- ***Medial Rectus Recession***: Weakening of the medial rectus muscle to reduce adduction.

- ***Lateral Rectus Recession***: Weakening of the lateral rectus muscle to reduce abduction.

2. ***Resection***: Strengthening of the muscle to increase its action.

- ***Medial Rectus Resection***: Strengthening of the medial rectus muscle to increase adduction.

- ***Lateral Rectus Resection***: Strengthening of the lateral rectus muscle to increase abduction.

3. ***Transposition***: Moving the insertion point of the muscle to change its action.

- ***Medial Rectus Transposition***: Moving the insertion point of the medial rectus muscle to increase adduction.

Ptosis Surgery

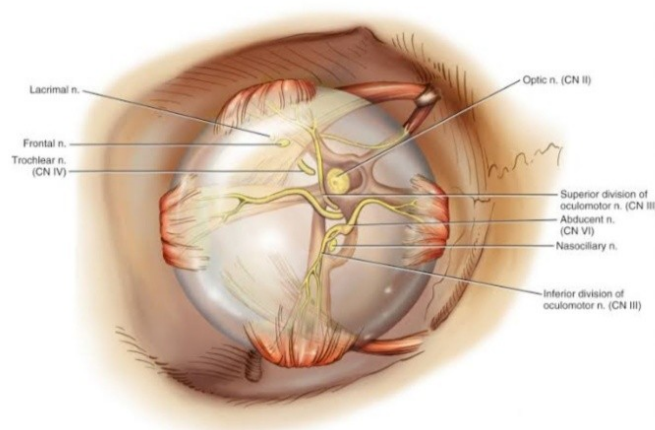


1. ***Levator Palpebrae Superioris Muscle Repair***: Repair of the levator palpebrae superioris muscle to improve eyelid elevation.

2. ***Müller's Muscle-Conjunctival Resection***: Resection of Müller's muscle and conjunctiva to improve eyelid elevation.

3. ***Frontalis Sling***: Creation of a sling using the frontalis muscle to improve eyelid elevation.

Nerve Decompression



***Oculomotor Nerve Decompression*:** Decompression of the oculomotor nerve to relieve compression and improve nerve function.

Physiotherapy management

Therapeutic modalities:

1. Electrical stimulation(ES):

- muscle stimulation to improve eye muscle strength and function.
- nerve stimulation to enhance nerve conduction and regeneration.

2. Transcutaneous electrical nerve stimulation(TENS)

- pain relief and reduction of muscle spasm .
- improvement of eye movement range and coordination.

3.galvanic stimulation:

- stimulation of eye muscles to improve strength and function.
- enhancement of nerve conduction and regeneration.

3. Functional electrical stimulation(FES)

- improve eye movements and alignment

4. Cold and heat therapy :

- To reduce pain and inflammation

5. Laser therapy

- improve tissue healing and reduce inflammation.

Therapeutic exercise :

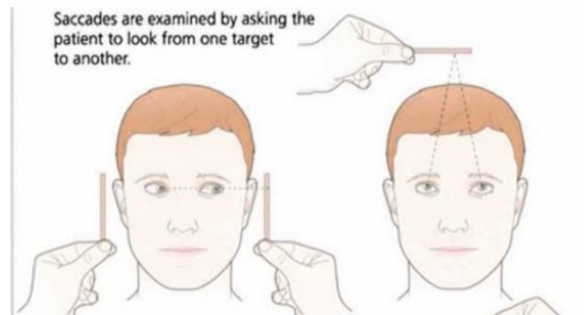
1• Eye movement exercise :

- Version:



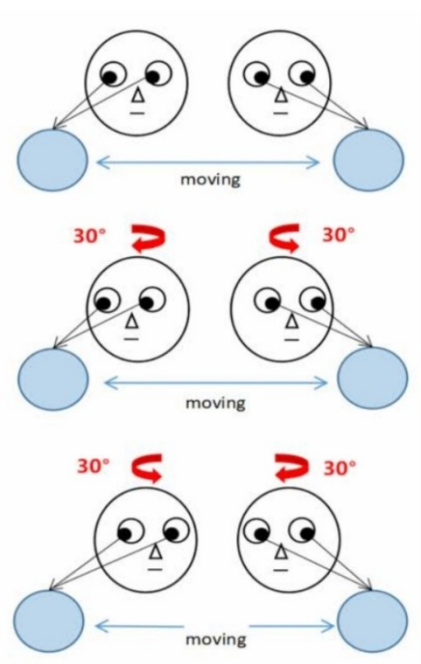
move both eyes together in the same direction (looking up,down ,left or right)

- saccades :



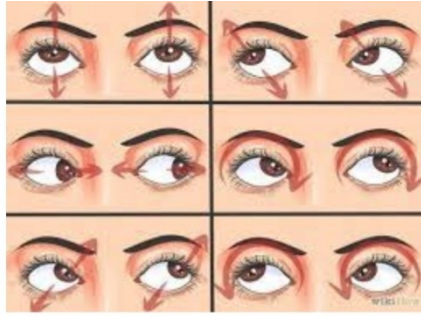
quickly move the eyes between two points (looking from one object from one object to another).

- pursuits:



smoothly follow a moving object with the eyes.

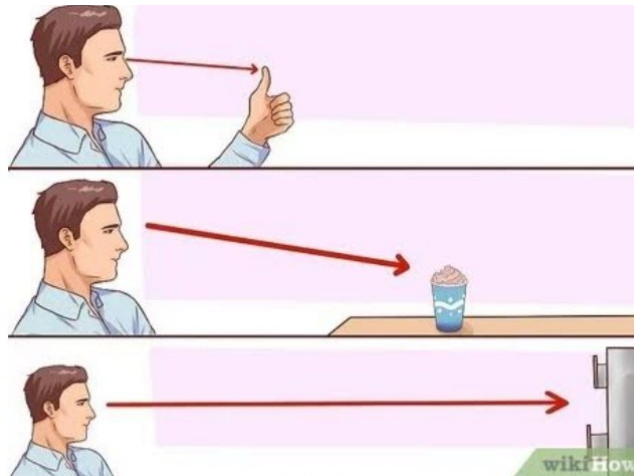
2 .Eye rotation exercise:



- clockwise rotation: rotate the affected eye clockwise in a circular motion.
- counterclockwise rotation:

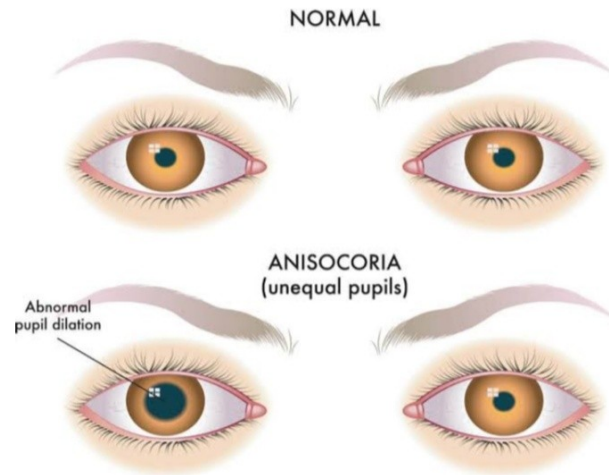
Rotation the affected eye counterclock in circular motion.

3. Near and far focusing exercises:



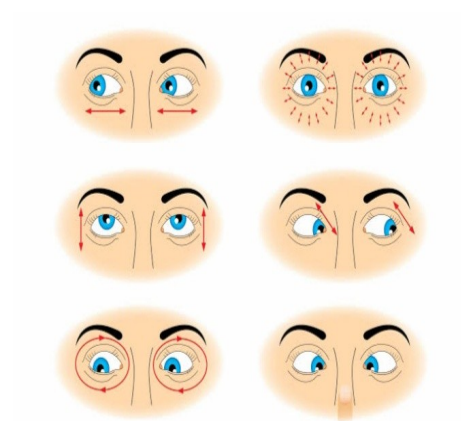
- Near focus : focus on a nearby object (pen, book) for 5-10 second.
- far focus on a distant object (clock ,picture) for 5-10seconds.

4. Pupil reaction exercise :



- light reaction:shine a light in the affected eye and observe pupil constriction.
- dark reaction : move from a bright to a dark environment and observe pupil dilation.

5.Eyelid exercise:



- eyelid opening : open the affected eyelid as wide as possible.
- Eyelid closing: close the affected eyelid tightly.

6.Orbicularis oculi exercises:

- Eyelid muscle strengthening: tighten and relax the eyelid muscles..

Manual Therapy

1. *Soft tissue mobilization*: Gentle, sustained pressure to release tension in the facial muscles.

2. *Trigger point therapy*: Applying pressure to specific areas to release tension and promote relaxation.

3. *Myofascial release*: Gentle, sustained pressure to release tension in the facial muscles

Common **assessment**

Name-

Age -

Sex-

Occupation -

Contact no.-

Address-

Chief complain -blurred vision and double vision.

History- history hypertension since 2 years and she is taking medicine regularly

Present history- headache ,and vision problem

History of pain -

Duration -3 weeks

Site of pain - left side

Type of pain- severe pain

Past medical history-hypertensive medicine

Surgical history -cataract surgery in both eyes.

Personal history-

- tabacco- no

- smoking- no

- alcohol- no

Family history- no family history

Objective:

Facial expression- painfull

General condition of patient-poor

Posture- normal

Gait-normal

On palpation:

Tenderness-yes

Swelling - over the eyes

Vitals sign

Blood pressure-140/100mmhg

Temperature-37

Pulse-82 beat / min

Respiratory rate-normal

On examination:-

Optic nerve-

Oculomotor nerve -affected

Trochlear nerve-

Abducens nerve-

Trigeminal nerve -

Facial nerve -

Diagnosis :

Ct-scan

MRI

Head Angiography

Cbc test

Hba1c

Esr test

Lipid profile

Special test :

Cover uncover test

Red glass test

Treatment:

Medical treatment

NASIDS

Anti hypertensive drug

Anti diabetic drug

Anti biotics

Surgical treatment:

Ptosis surgery

Nerve decompression

Physiotherapy treatment

Electrical stimulation

TENS

Galvanic stimulation

Laser therapy

Taping

Therapeutic exercise:

Eye movement

Eye rotation

Near and far focusing exercise.

Eyelid movements .

Extraocular muscle strengthening.

Manual therapy :

Massage

Soft tissue mobilization

Myofascial release

Case study

Case study 1

Name-ramkali kushwaha

Age -62

Sex-female

Occupation -housewife

Address- satna

Chief complain -vision problem and severe headache

History- no history

Present history- difficulty in opening eyes

History of pain -

Duration -3 weeks

Past medical history-hypertensive

Personal history-

- tabacco- no

- smoking- no

- alcohol- no

Family history- no family history

Objective:

On palpation:

Tenderness- present

Swelling - present over the eyes

Vitals sign

Blood pressure-140/100mmhg

Temperature-37°C

Pulse-82 beat / min

Respiratory rate-normal

On examination:

Oculomotor nerve -affected

Diagnosis :

CT-scan

MRI

Head Angiography

Cbc test

Hba1c

Esr test

Lipid profile

Special test :

Cover uncover test

Red glass test

Treatment:

Medical treatment

NASIDS

Anti hypertensive drug

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Surgical treatment:

Ptosis surgery

Nerve decompression

Physiotherapy treatment

Electrical stimulation

TENS

Galvanic stimulation

Laser therapy

Taping

Therapeutic exercise:

Eye movement

Eye rotation

Near and far focusing exercise.

Eyelid movements .

Extraocular muscle strengthening

Manual therapy :

Massage

Soft tissue mobilization

Myofascial release

Case study 2

Name-arti

Age -24

Sex-female

Occupation -teacher

Address- rewa

Chief complain -drooping eyelid (ptosis)

History- no history

Present history- difficulty in opening eyes and vision problem

History of pain -

Duration -one month

Past medical history- no history

Personal history-

- tabacco- no

- smoking- no

- alcohol- no

Family history- no family history

Objective:

On palpation:

Tenderness-yes

Swelling - over the eyes

Vitals sign

Blood pressure-normal

Temperature-normal

Pulse-normal

Respiratory rate-normal

On examination:

Oculomotor nerve -affected

Diagnosis :

St-scan

MRI

Head Angiography

Cbc test

Hba1c

Esr test

Lipid profile

Special test :

Cover uncover test

Red glass test

Treatment:

Medical treatment

NASIDS

Anti hypertensive drug

Anti diabetic drug

Anti biotics

Surgical treatment:

Ptosis surgery

Physiotherapy treatment

Electrical stimulation

TENS

Galvanic stimulation

Laser therapy

Taping

Theraupatic exercise:

Eye movement

Eye rotation

Near and far focusing exercise.

Eyelid movements .

Extraocular muscle strengthening

Manual therapy :

Massage

Soft tissue mobilization

Myofascial release

Case study 3

Name-anshu

Age -22

Sex-male

Occupation -student

Address-mauganj

Chief complain -eye pain and redneaa

History- no history

Present history- eye pain

History of pain -

Duration -3 month

Past medical history- no history

Personal history-

- tabacco- yes

- smoking-yes

- alcohol- yes

Family history- no family history

Objective:

On palpation:

Tenderness-yes

Swelling - over the eyes

Redness -yes

Vitals sign

Blood pressure-normal

Temperature-normal

Pulse-normal

Respiratory rate-normal

On examination:

Oculomotor nerve -affected

Diagnosis :

St-scan

MRI

Head Angiography

Cbc test

Hba1c

Esr test

Lipid profile

Special test :

Cover uncover test

Red glass test

Treatment:

Medical treatment

NASIDS

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Therapeutic exercise:

Eye movement

Eye rotation

Near and far focusing exercise.

Eyelid movements .

Extraocular muscle strengthening

Manual therapy :

Massage

Soft tissue mobilization

Myofascial release

Case study 4

Name-rajkaran singh

Age -72

Sex-male

Occupation -farmer

Address-annuppur

Chief complain -eye movement abnormalities.

History- no history

Present history- eye movement abnormalities

Duration -4days

Past medical history- no history

Personal history-

- tabacco- yes

- smoking-no

- alcohol- no

Family history- no family history

Objective:

On palpation:

Tenderness-yes

Swelling - over the eyes

Redness -yes

Vitals sign

Blood pressure-normal

Temperature-normal

Pulse-normal

Respiratory rate-normal

On examination:

Oculomotor nerve -affected

Diagnosis :

St-scan

MRI

Head Angiography

Cbc test

Hba1c

Esr test

Lipid profile

Special test :

Cover uncover test

Red glass test

Treatment:

Medical treatment

NASIDS

Anti hypertensive drug

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Surgical treatment:

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Therapeutic exercise:

Eye movement

Eye rotation

Near and far focusing exercise.

Eyelid movements .

Extraocular muscle strengthening

Manual therapy :

Massage

Soft tissue mobilization

Myofascial release

Case study -5

Name-ankita

Age -24

Sex-female

Occupation -student

Address-satna

Chief complain -double vision and weakness

History- no history

Present history- double vision and weakness

Duration -one month

Past medical history- no history

Personal history-

- tabacco- yes

- smoking-yes

- alcohol- yes

Family history- no family history

Objective:

On palpation:

Tenderness-yes

Swelling - over the eyes

Redness -yes

Vitals sign

Blood pressure-normal

Temperature-normal

Pulse-normal

Respiratory rate-normal

On examination:

Oculomotor nerve -affected

Diagnosis :

St-scan

MRI

Head Angiography

Cbc test

Hba1c

Esr test

Lipid profile

Special test :

Cover uncover test

Red glass test

Treatment:

Medical treatment

NASIDS

Anti hypertensive drug

Anti diabetic drug

Anti biotics

Surgical treatment:

Ptosis surgery

Physiotherapy treatment

Electrical stimulation

TENS

Galvanic stimulation

Laser therapy

Taping

Therapeutic exercise:

Eye movement

Eye rotation

Near and far focusing exercise.

Eyelid movements .

Extraocular muscle strengthening

Manual therapy :

Massage

Soft tissue mobilization

Myofascial release

Case study 6

Name-ramkumar

Age -70

Sex-male

Occupation -farmer

Address-sahdol

Chief complain -sudden loss of vision.

History- no history

Present history- loss of vision

Duration -one month

Past medical history- no history

Personal history-

- tabacco- yes

- smoking-yes

- alcohol- yes

Family history- no family history

Objective:

On palpation:

Tenderness-yes

Swelling - over the eyes

Redness -yes

Vitals sign

Blood pressure-normal

Temperature-normal

Pulse-normal

Respiratory rate-normal

On examination:

Oculomotor nerve -affected

Diagnosis :

St-scan

MRI

Head Angiography

Cbc test

Hba1c

Esr test

Lipid profile

Special test :

Cover uncover test

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Treatment:

Medical treatment

NASIDS

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Surgical treatment:

Ptosis surgery

Physiotherapy treatment

Electrical stimulation

TENS

Galvanic stimulation

Laser therapy

Taping

Therapeutic exercise:

Eye movement

Eye rotation

Near and far focusing exercise.

Eyelid movements .

Extraocular muscle strengthening

Manual therapy :

Massage

Soft tissue mobilization

Myofascial release

Case study 7

Name-ram

Age -63

Sex-male

Occupation -farmer

Address-sidhi

Chief complain -eye discharge and redness

History- no history

Present history- eye discharge and redness

Duration -one weeks

Past medical history- no history

Personal history-

- tabacco- yes

- smoking-yes

- alcohol- yes

Family history- no family history

Objective:

On palpation:

Tenderness-yes

Swelling - over the eyes

Redness -yes

Vitals sign

Blood pressure-normal

Temperature-normal

Pulse-normal

Respiratory rate-normal

On examination:

Oculomotor nerve -affected

Diagnosis :

St-scan

MRI

Head Angiography

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Hba1c

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Red glass test

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Medical treatment

NASIDS

Anti hypertensive drug

Anti diabetic drug

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Ptosis surgery

Physiotherapy treatment

Electrical stimulation

TENS

Galvanic stimulation

Laser therapy

Taping

Therapeutic exercise:

Eye movement

Eye rotation

Near and far focusing exercise.

Eyelid movements .

Extraocular muscle strengthening

Manual therapy :

Massage

Soft tissue mobilization

Myofascial release

Case study 8

Name-shail

Age -24

Sex-female

Occupation -teacher

Address-singrauli

Chief complain -eye pain and sensitivity to light

History- no history

Present history- eye pain and sensitivity to light

Duration - few days

Past medical history- no history

Personal history-

- tabacco- no

- smoking-no

- alcohol- no

Family history- no family history

Objective:

On palpation:

Tenderness-yes

Swelling - over the eyes

Redness -yes

Vitals sign

Blood pressure-normal

Temperature-normal

Pulse-normal

Respiratory rate-normal

On examination:

Oculomotor nerve -affected

Diagnosis :

St-scan

MRI

Head Angiography

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Esr test

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Treatment:

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Eye rotation

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Eyelid movements .

Extraocular muscle strengthening

Manual therapy :

Massage

Soft tissue mobilization

Myofascial release

Case study 9

Name-anjali

Age -8

Sex-female

Occupation -student

Address-sidhi

Chief complain -blurred vision.

History- no history

Present history- blurred vision.

Duration -one month

Past medical history- no history

Personal history-

- tabacco- no

- smoking-no

- alcohol- no

Family history- no family history

Objective:

On palpation:

Tenderness-yes

Swelling - over the eyes

Redness -yes

Vitals sign

Blood pressure-normal

Temperature-normal

Pulse-normal

Respiratory rate-normal

On examination:

Oculomotor nerve -affected

Diagnosis :

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Taping

Therapeutic exercise:

Eye movement

Eye rotation

Near and far focusing exercise.

Eyelid movements .

Extraocular muscle strengthening

Manual therapy :

Massage

Soft tissue mobilization

Myofascial release

Case study 10

Name-riya

Age -29

Sex-female

Occupation -housewife

Address-sahdol

Chief complain -sudden onset of blindness

History- no history

Present history- sudden onset of blindness.

Duration -one month

Past medical history- no history

Personal history-

- tabacco- yes

- smoking-yes

- alcohol- yes

Family history- no family history

Objective:

On palpation:

Tenderness-yes

Swelling - over the eyes

Redness -yes

Vitals sign

Blood pressure-normal

Temperature-normal

Pulse-normal

Respiratory rate-normal

On examination:

Oculomotor nerve -affected

Diagnosis :

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Manual therapy :

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Soft tissue mobilization

Myofascial release

Review of **literature**

Websites:-

<https://www.physio-pedia.com>

<https://emedicine.medscape.com>

<https://www.myoclinic.org>

<https://www.aao.org>

<https://eyewiki.org>

Book:-

BD Chaurasia's Head neck volume -3rd